

## STIC Biotechnology Systems Branch

### RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/542,937  
Source: PG/10  
Date Processed by STIC: 7/29/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

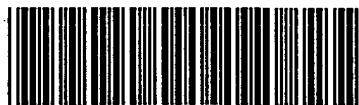
Revised 01/24/05

BEST AVAILABLE COPY

## Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>10/542,937</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor <b>after</b> creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line <b>not exceed</b> 72 characters in length. This includes white spaces.	
3 <input checked="" type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do <b>not</b> use tab codes between numbers; use <b>space characters</b> , instead.	
4 <input checked="" type="checkbox"/> Non-ASCII	The submitted file was <b>not</b> saved in ASCII(DOS) text, as <b>required</b> by the Sequence Rules. <b>Please ensure your subsequent submission is saved in ASCII text.</b>	
5 <input type="checkbox"/> Variable Length	Sequence(s) <input type="checkbox"/> contain n's or Xaa's representing more than one residue. <b>Per Sequence Rules, each n or Xaa can only represent a single residue.</b> Please present the <b>maximum</b> number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) <input type="checkbox"/> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. <b>This applies to the mandatory &lt;220&gt;-&lt;223&gt; sections for Artificial or Unknown sequences.</b>	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please insert the following lines for <b>each</b> skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to <b>include</b> the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please insert the following lines for <b>each</b> skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is <b>MANDATORY</b> if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only <b>valid</b> <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is <b>required</b> when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) <input type="checkbox"/> missing the <220> "Feature" and associated numeric identifiers and responses Use of <220> to <223> is <b>MANDATORY</b> if <213> "Organism" response is "Artificial Sequence" or "Unknown." <b>Please explain source of genetic material in &lt;220&gt; to &lt;223&gt; section.</b> (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n/Xaa	"n" can <b>only</b> represent a single <u>nucleotide</u> ; "Xaa" can <b>only</b> represent a single <u>amino acid</u>	

IMPORTANT see  
item 4 on Error  
summary sheet



PCT

DO NOT  
use bold  
print

see  
pp 1-4

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/542,937

DATE: 07/29/2005  
TIME: 08:45:53

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\07292005\J542937.raw

3 <110> APPLICANT: EFARMES, S.A.  
W--> 4 <120> TITLE OF INVENTION: Device a meted for detecting low density lipoprotein  
receptor gene

W--> 5 mutations  
W--> 6 associated with familial hypercholesterolemia  
W--> 7 <130> FILE REFERENCE: PCT-154  
C--> 8 <140> CURRENT APPLICATION NUMBER: US/10/542,937  
C--> 8 <141> CURRENT FILING DATE: 2005-07-21  
W--> 8 <160> NUMBER OF SEQ ID: 259  
W--> 9 <150> PRIOR APPLICATION NUMBER: ES200300206  
W--> 10 <151> PRIOR FILING DATE: 28.01.03 2003-01-28  
W--> 11 <150> PRIOR APPLICATION NUMBER: ES200302671  
W--> 12 <151> PRIOR FILING DATE: 17.11.03 2003-11-17

## ERRORED SEQUENCES

E--> 13 <210> SEQ ID NO: 1  
14 <211> LENGTH 60.000  
E--> 15 <212> TYPE: polynucleotide  
16 <213> ORGANISM: human

W--> 17 <220> FEATURE:

18 <221> NAME/KEY: gene

19 <223> OTHER INFORMATION: xLDL

W--> 20 <400> SEQUENCE: 1< Insert the sequence number

22 aaaagatgg tstatccattc aatggAACAT tattggcct taaaaaggaa ggaaattctc 60  
23 actgagcata gtggttatg cctgtaatcc cagcacTTG ggaggctgag gcagggggga 120  
24 gggggcggtt cacctgaggt caggagttca agaccAGCCT ggccaacatg gtgaatccc 180  
25 gtctctacta aaaataaaaa aaaaattAGCC gagtggttg gcacacaccc gtaagccagg 240  
26 ctacacggga gactgaggca ggagaatcgc tggAACCCGG .gaggcagagg ctgcagagag 300  
27 ccgagattgc gtcactgcac tccagcctgg gtgacagagc gagactcttg tctaaaaaaa 360  
28 aaaaAGAAGG aaggaAGGAA ggaAGGAAGG aagtTCTGAC acaggctcca acacAGATGT 420  
29 tatgctcagt gaaataAGCC agacatgaaa ggacAAATAC tgcctgatct cattcataAG 480  
30 aggtccctag aattgtagaa tggTGTGTGC cacggcTGG gaggggggtg ggccAGAGTT 540  
31 tcagTTTGGG aagtTGAGAA tggTCTGGAG atggatggcg gtatggtgg ttgcacaACT 600  
32 gtgtGAATGC gcttaATGCC tctGAATTGT gcagtacAA gtggTTcggA tggggcgggc 660  
33 gcggTGGCTC atgcCTGAA tcccAGCCT ttgggaggcc gaggcaggTG gatcatgaga 720  
34 tcaggAGATC gagaccATCC tggCTAACAC ggtgaaACCC catCTCTACT aaaaaATACA 780  
35 aaaaATTAGC caggcatGGT ggtgggcacc tggatccc gttacttggg aggccggaggc 840  
36 aggagaATGG cgtGAACACG ggaggcagAA ctTgcAGTGA gcccAGATCA cggcactgca 900  
37 ctccAGCCTG ggcgacAGAG tgAGACTCCG tctaaaaaaa aaaaAGTGT taAGATGGC 960  
38 cgggcatGGG ggatcACGCT tgcAATCCC acacttGGG aggctgaggT gggtgattac 1020  
39 gaggtcAGGA gttcgAGACC agcctgACCA ccatggTGAa accccgtctc tactaaaAGT 1080  
40 acaaaATTAG cggggtGTcG tggcacACGT ctgtaatccc agctactGGG gaggctgagt 1140

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/542,937

DATE: 07/29/2005  
TIME: 08:45:53

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\07292005\J542937.raw

237 tgcttaagt tgaatctta aacttatctt tatttttag acacagtctc actctgtcgc 12960  
 238 ccaggctgga gtgcagtgg acaaccacag ctcagtgcag cggtgaccc ctgggctcaa 13020  
 239 gccatcctcc cgcctcagcc tcccagtag ctggactac aggcgcacac aaccatgtcc 13080  
 240 agtttatttt tggatggat gtagagacag ggtccactg tggatggat gcttgcctg 13140  
 241 aactcctagg ctcaagtgtat ccccccgcct caccctccca aagtgtggg attacaggca 13200  
 242 tgagccacca catccagact tcaactttt gtttaatgtc gcaaatggca taaggaatgg 13260  
 243 gattcaatgg ggacacattt ataaacgttg cagcagctcc tagaacttgc ctatccttgc 13320  
 244 aaacttctct aggtgattgc taattacttc tttttttt ttttttttgg agacggagtc 13380  
 245 tcactctgtc gcccaggctg gaggatgtc ggcgaatctc gtctcaactgc aaactccacc 13440  
 246 tcccggttc acgcattct ctcgcctcg cctcccgagt agctggact acaggcacc 13500  
 247 gcccaccacgc cccggtaatt ttttgattt ttttttagta gaggtgggtt ttcaactgtgt 13560  
 248 tatccaggat ggtcttgatc tccgtacccgtc gtgatccacc tgcctcagcc tcccaaagtg 13620  
 249 ctgggattac aggcgtgagc caccatgccc agcccgctaa ttatcaat ttgaccttga 13680  
 250 cactgagccct gccaagttagg ttcaagcattt ttgatggccc ctttacaggt tggaaagct 13740  
 251 aatttatctg tccaaaggccg aattctgaaa ctgagtcata actgcacaaa attcttatca 13800  
 252 tcaatttctt cttctgggtt gggcacagtg gctcatgcct gtaaaagccag caatttgaga 13860  
 253 ggcacatcatga tgcaagagga agaggattga gtgaagctag gagtttgga ccagcctggg 13920  
 254 caacatagtg agacccatc tataaaaaaa aattaaaaat tagttggca tgggggtgca 13980  
 255 ctctgtggt cctagctatt caggaggctg aggtgggagg attccttgag cccagggttg 14040  
 256 acgctgcaga gagctgtgtat caccgcactg cagtcaccc tgagtgcacag ctggaaataa 14100  
 257 tgataaataa ataataaata attattnaa aaattataat aaaaataatt aaaaattat 14160  
 258 tttccctgtat taatctttt ttttgccctt ctgagagttc aatttgcattt tttctgcct 14220  
 259 ggtctccatg gttccctaa aatccgtcg agaggttagc actgcctgcc aaagtcaatt 14280  
 260 tgcacaaatcc cagagaaatc cagcttattc ctgggggaaac cgccaaagact gcccagcc 14340  
 261 gtgtgggtt caggcaagtt ttcacatgt gccttttgg caagaggct ctgcaaccc 14400  
 262 catgagtcaccaaaagagact caattctaaa agttgtcctc caccagctct ctgtggctta 14460  
 263 ggggttcaag ttcaactgtg aaagccctgt tttgtttga ttttgctttg agggagagga 14520  
 264 aaccgcctt ctgtttgttcaactccttctt cctaaggggaa gaaatcaata ttacgtcca 14580  
 265 gactccaggt atccgtacaa ttgattttc agatgtttt actcagccaa aggccggatc 14640  
 266 ccacaaaaca aaaaatattt ttttggctgt actttgtga agattttttaaattcctg 14700  
 267 attgatcagt gtcttatttgg tggatggaa taacaatgtaa aaaaacaatataaacaacgaaag 14760  
 268 gaagctaaaa atctatacac aattcctaga aagggaaaagg caaatataga aagtggcgga 14820  
 269 agttccaaac attttagtgg tttccctttt gaggcagaga ggacaatggc attaggctat 14880  
 270 tggaggatct tggatggatct tctgtggaca acaacagca aatgttaaca 14940  
 271 gttaaacatc gagaatttc aggaggatct ttcagaagat gctttccaa ttttgagggg 15000  
 272 ggcgtcgtcc ttcacccggag acccaaataac aacaaatcaa gtcgcctgcc ctggcgacac 15060  
 273 tttcgaaggg ctggagtggg aatcagagct tcacgggtt aaaaaggcat gtcacatcg 15120  
 274 ccgttcgaaa ctcctcttc tgcagtgggg tgaagacatt tggatggatcc cccactgca 15180  
 275 actcctccccc ctgttagaaa ctcacatgg aatgtgttca aatgtgttgg gccccggatg 15240  
 276 caatcgccgg aagccagggt ttcacatgtt gacacagcg gtcgtgttcc gggcgccgg 15300  
 277 actgcctggc agaggctggc aac atg ggg ccc tgg ggc tgg aaa ttg cgc 15350  
 278 met (met) gly (gly) pro (pro) trp (trp) gly (gly) trp (trp) lys (lys) leu (leu) arg (arg) *< These are misaligned. They need to be directly under Codon atg met*  
 279 -21 -20 -15 -1 1  
 280 tgg acc gtc gcc ttg ctc ctc gcc qcq qcq ggg act qca g gtaaggcttg 15400  
 281 trp thr val ala leu leu ala ala ala gly thr ala v  
 282 -10 -5 -1 1  
 283 ctccaggcgc cagaataggt tgagagggag ccccccgggg gcccttggga atttattttt 15460  
 284 ttgggtacaa ataattcactc catccctggg agacttggg ggtatggca cggggccctt 15520  
 285 cccaaacggc tggagggggg gctggagggg ggcgtcgtt gggcgccgg ggtcggggagg 15580

use upper-case for initial letter of amino acid

Met Gly Pro

do not use TAB

Codes between 7/29/05  
amino acids

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\07292005\J542937.raw

1176 agtagctggg gccacaggcg cctgccacca cgccggcta atttttttt gtacttctt 59327  
1177 tagtacagac ggggttacatcatgttagcc agatggctc cgatctcctg accttgtat 59387  
1178 ccacctgctt cggcctccca aagtgttagg attacaggcg tgagccaccg cgggtggcca 59447  
1179 acgctaattt ttttgggg ttagatggag tctgtctg tcgcccaggc tgagtgac 59507  
1180 tggcgtgatc tctgcctact gcaagctccg cttccgggt tcatgcatt ctccctgcctc 59567  
1181 agcctcctga gtaactggga ctacaggcac cggccaccac gcccggctaa tttttgtat 59627  
1182 ttttagtaga gacagggttt caccgttta gccaggatgg tcttgatctc ctgaccttgg 59687  
1183 gatccaccgg tctccgcctc cccaaagtgc gggatttagag gtgtgagcca ccacacctgg 59747  
1184 cctagcctgg ctaattttt tattttttt agagacgggg tttcaccatg ttggtcaggc 59807  
1185 tggctttagaa cttctgacat caggtaatct gcctgcctca gtctccaaa gtgctgggat 59867  
1186 tacaggtgtg agccaccgcg cttccgcctca cttccctctg tcatctgtt ttggatttgg 59927  
1187 ctcccccagga gaaggaccca gaaggggaaactccca gatgcaatct 59987  
1188 cctgtggctg cca 60000

E--> 1190 <210> ~~SEQ ID NO: 2~~ delete

1191 <211> LENGTH: 24

E--> 1192 <212> TYPE: polynucleotide ~~invalid~~

1193 <213> ORGANISM: artificial sequence

W--> 1194 <220> FEATURE:

W--> 1195 <221> NAME/KEY: oligonucleotide

1196 <223> OTHER INFORMATION: Ex1F

W--> 1197 <400> SEQUENCE: 2<insert>

1198 cacattgaaa tgctgttaat gacg

E--> 1200 <210> SEQ ID NO: SEQ ID NO: 3

1201 <211> LENGTH: 24

E--> 1202 <212> TYPE: polynucleotide

1203 <213> ORGANISM: artificial sequence

W--> 1204 <220> FEATURE:

W--> 1205 <221> NAME/KEY: oligonucleotide

1206 <223> OTHER INFORMATION: Ex1R

E--> 1209 <400> SEQUENCE:

1210 ctattctggc gcctggagca agcc

E--> 1212 <210> SEQ ID NO: SEQ ID NO: 4

1213 <211> LENGTH: 24

E--> 1214 <212> TYPE: polynucleotide

1215 <213> ORGANISM: artificial sequence

W--> 1216 <220> FEATURE:

W--> 1217 <221> NAME/KEY: oligonucleotide

1218 <223> OTHER INFORMATION: Ex2F

W--> 1219 <400> SEQUENCE:

1220 ttgagagacc ctttctcatt ttcc

E--> 1222 <210> SEQ ID NO: SEQ ID NO: 5

1223 <211> LENGTH: 20

E--> 1224 <212> TYPE: polynucleotide

1225 <213> ORGANISM: artificial sequence

W--> 1226 <220> FEATURE:

W--> 1227 <221> NAME/KEY: oligonucleotide

1228 <223> OTHER INFORMATION: Ex2R

W--> 1229 <400> SEQUENCE:

1230 gcatatcatg cccaaagggg

give source of genetic material  
(see item 11 on  
Error Summary  
sheet)

base total  
at right  
margin of  
each line

fix  
these  
error

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\07292005\J542937.raw

E--> 1506 <212> TYPE: polynucleotide  
1507 <213> ORGANISM: artificial sequence  
W--> 1508 <220> FEATURE:  
W--> 1509 <221> NAME/KEY: oligonucleotide  
1510 <223> OTHER INFORMATION: Ex15R  
W--> 1511 <400> SEQUENCE:  
1512 tagggagggc ccagtcttt  
E--> 1514 <210> SEQ ID NO: SEQ ID NO: 34  
1515 <211> LENGTH: 20  
E--> 1516 <212> TYPE: polynucleotide  
1517 <213> ORGANISM: artificial sequence  
W--> 1518 <220> FEATURE:  
W--> 1519 <221> NAME/KEY: oligonucleotide  
1520 <223> OTHER INFORMATION: Ex17F  
W--> 1521 <400> SEQUENCE:  
1522 gggctctgg tctcgggggc  
E--> 1524 <210> SEQ ID NO: SEQ ID NO: 35  
1525 <211> LENGTH: 22  
E--> 1526 <212> TYPE: polynucleotide  
1527 <213> ORGANISM: artificial sequence  
W--> 1528 <220> FEATURE:  
W--> 1529 <221> NAME/KEY: oligonucleotide  
1530 <223> OTHER INFORMATION: Ex17R  
W--> 1531 <400> SEQUENCE:  
1532 ggctctggc ttcttagagag gg  
E--> 1534 <210> SEQ ID NO: SEQ ID NO: 36  
1535 <211> LENGTH: 23  
E--> 1536 <212> TYPE: polynucleotide  
1537 <213> ORGANISM: artificial sequence  
W--> 1538 <220> FEATURE:  
W--> 1539 <221> NAME/KEY: oligonucleotide  
W--> 1540 <223> OTHER INFORMATION: *← mandatory response needed on <223> line*  
W--> 1540 <400> SEQUENCE:  
1541 cgggtcggga cactgcctgg cag  
E--> 1544 <210> SEQ ID NO: SEQ ID NO: 37  
1545 <211> LENGTH: 23  
E--> 1546 <212> TYPE: polynucleotide  
1547 <213> ORGANISM: artificial sequence  
W--> 1548 <220> FEATURE:  
W--> 1549 <221> NAME/KEY: oligonucleotide  
W--> 1550 <223> OTHER INFORMATION:  
W--> 1550 <400> SEQUENCE:  
1551 cgggtcggga ccctgcctgg cag  
E--> 1553 <210> SEQ ID NO: SEQ ID NO: 38  
1554 <211> LENGTH: 23  
E--> 1555 <212> TYPE: polynucleotide  
1556 <213> ORGANISM: artificial sequence  
W--> 1557 <220> FEATURE:  
W--> 1558 <221> NAME/KEY: oligonucleotide

4  
fix these errors

Artificial Sequence MUST be

Explained on <223> line

*These pages are shown as samples of global errors. Please consult sequence Rules and attached sample sequence listing for valid format.*

**Smith, John; Smithgene Inc.**

**Example of a Sequence Listing**

**01-00001**

**PCT/EP98/00001**

**1998-12-31**

**US 08/999,999**

**1997-10-15**

**4**

**PatentIn version 2.0**

**1**

**389**

**DNA**

**Paramecium sp.**

**<220>**

**CDS**

**<221> (279)...(389)**

**<300>**

**Doe, Richard**

**<301> Isolation and Characterization of a Gene Encoding a**  
**Protease from Paramecium sp.**

**<302> Journal of Genes**

**<303> 1**

**<304> 4**

**<305> 1-7**

**<306> 1988-06-31**

**<307> 123456**

**<308> 1988-06-31**

**<309> 1988-06-31**

**<400> 1**  
**agctgttagtc attcctgtgt cctcttctct ctgggcttct caccctgcta atcagatctc** 60

**aggagagatg tcttgaccct cctctgcctt tgcagttca caggcaggca ggcaggcagc** 120

**tgatgtggca attgctggca gtgccacagg cttttcagcc aggcttaggg tgggttccgc** 180

**cgcggcgccg cggccccctct cgcgcctc ctcgcctct ctctcgctct cctctcgctc** 240

*Consult This*

ggacctgatt aaggtagcag gaggaggggggc cagtttagc atg gttttcaatgtt ttc agc 296  
Met Val Ser Met Phe Ser  
1 5

tgg tct ttctaaa tgg cct gga ttt tgg ttt gtttgttttg ttc caa 344  
Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu Phe Val Cys Leu Phe Gln  
10 15 20

tgt ccc aaa gtc ctc ccc tgt cac tca tca -ctg cag ccg aat ctt 389  
Cys Pro Lys Val Leu Pro Cys His Ser Ser Leu Gln Pro Asn Leu  
25 30 35

<210> 2  
<211> 37  
<212> PRT  
<213> Paramecium sp.

<400> 2  
Met Val Ser Met Phe Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu  
1 5 10 15  
Phe Val Cys Leu Phe Gln Cys Pro Lys Val Leu Pro Cys His Ser Ser  
20 25 30  
Leu Gln Pro Asn Leu  
35

<210> 3  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Designed peptide based on size and polarity to act as a  
linker between the alpha and beta chains of Protein XYZ.

<400> 3  
Met Val Asn Leu Glu Pro Met His Thr Glu Ile  
1 5 10

<210> 4  
<400> 4  
000

identifiers and their accompanying information as shown in the following table. The numeric identifier shall be used only in the "Sequence Listing." The order and presentation of the items of information in the "Sequence Listing" shall conform to the arrangement given below. Each item of information shall begin on a new line and shall begin with the numeric identifier enclosed in angle brackets as shown. The submission of those items of information designated with an "M" is mandatory. The submission of those items of information designated with an "O" is optional. Numeric identifiers <110> through <70> shall only be set forth at the beginning of the "Sequence Listing." The following table illustrates the numeric identifiers.

Numeric Identifier	Definition	Comments and Format	Mandatory (M) or Optional (O)
<110>	Applicant	Preferably max. of 10 names; one name per line; preferable format: Surname, Other Names and/or Initials	M
<120>	Title of Invention		M
<130>	File Reference	Personal file reference	M when filed prior to assignment of appl. number
<140>	Current Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if available
<141>	Current Filing Date	Specify as: yyyy-mm-dd	M, if available
<150>	Prior Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if applicable include priority documents under 35 USC 119 and 120
<151>	Prior Application Filing Date	Specify as: yyyy-mm-dd	M, if applicable
<160>	Number of SEQ ID NOS	Count includes total number of SEQ ID NOS	M
<170>	Software	Name of software used to create the Sequence Listing	O
<210>	SEQ ID NO: #:	Response shall be an integer representing the SEQ ID NO shown	M
<211>	Length	Respond with an integer M expressing the number of bases or amino acid residues	M

<212>	Type	Whether presented as a sequence molecule (DNA, RNA, or PRT (protein)). If a nucleotide sequence contains both DNA and RNA fragments, the type shall be "DNA." In addition, the combined DNA/RNA molecule shall be further described in the <220> to <223> feature section.	M
<213>	Organism	Scientific name, i.e. Genus/species, Unknown or Artificial Sequence. In addition, the "Unknown" or "Artificial Sequence" organisms shall be further described in the <220> to <223> feature section.	M
<220>	Feature	Leave blank after <220>. <221-223> provide for a description of points of biological significance in the sequence.	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA.
<221>	Name/Key	Provide appropriate identifier for feature, preferably from WIPO Standard ST.25 (1998), Appendix 2, Tables 5 and 6	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence
<222>	Location	Specify location within sequence; where appropriate state number of first and last bases/amino acids	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified

		In feature	base was used in a sequence
<223> Other information		Other relevant information, four lines maximum	M under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence, if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA.
<300>	Publication Information	Leave blank after <300>	O
<301>	Authors	Preferably max of ten named authors of publication; specify one name per line; preferable format: Surname, Other Names and/or Initials	O
<302>	Title		O
<303>	Journal		O
<304>	Volume		O
<305>	Issue		O
<306>	Pages		O
<307>	Date	Journal date on which data published; specify as yyyy-mm-dd, MMM-yyyy or Season-yyyy	O
<308>	Database Accession Number	Accession number assigned by database including database name	O
<309>	Database Entry Date	Date of entry in database; specify as yyyy-mm-dd or MMM-yyyy	O
<310>	Patent Document Number	Document number; for patent-type citations only. Specify as, for example, US 07/999,999	O

&lt;311&gt;

Patient Filing Date

Document Filing date, for patent-type citations only, specify as yyyy-mm-dd

&lt;312&gt;

Publication Date

Document publication date, for patent-type citations only, specify as yyyy-mm-dd

&lt;313&gt;

Relevant Residues

FROM (position) TO (position)

&lt;400&gt;

Sequence

SEQ ID NO should follow the numeric identifier and should appear on the line preceding the actual sequence

M

5. Section 1.824 is revised to read as follows:

1.824 Form and format for nucleotide and/or amino acid sequence submissions in computer readable form.

(a) The computer readable form required by 1.821(e) shall meet the following specifications:

(1) The computer readable form shall contain a single "Sequence Listing" as either a diskette, series of diskettes, or other permissible media outlined in paragraph (c) of this section.

(2) The "Sequence Listing" in paragraph (a) (1) of this section shall be submitted in American Standard Code for Information Interchange (ASCII) text. No other formats shall be allowed.

(3) The computer readable form may be created by any means, such as word processors, nucleotide/amino acid sequence editors or other custom computer programs; however, it shall conform to all specifications detailed in this section.

(4) File compression is acceptable when using diskette media, so long as the compressed file is in a self-extracting format that will decompress on one of the systems described in paragraph (b) of this section.

(5) Page numbering shall not appear within the computer readable form version of the "Sequence Listing" file.

(6) All computer readable forms shall have a label permanently affixed thereto on which has been hand-printed or typed: the name of the applicant, the title of the invention, the date on which the data were recorded on the computer readable form, the operating system used, a reference number, and an application serial number and filing date, if known.

(b) Computer readable form submissions must meet these format requirements:

(1) Computer: IBM PC/XT/AT, or compatibles, or Apple Macintosh;

(2) Operating System: MS-DOS, Unix or Macintosh;

3

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**